

# TENNESSEE PUBLIC WORKS

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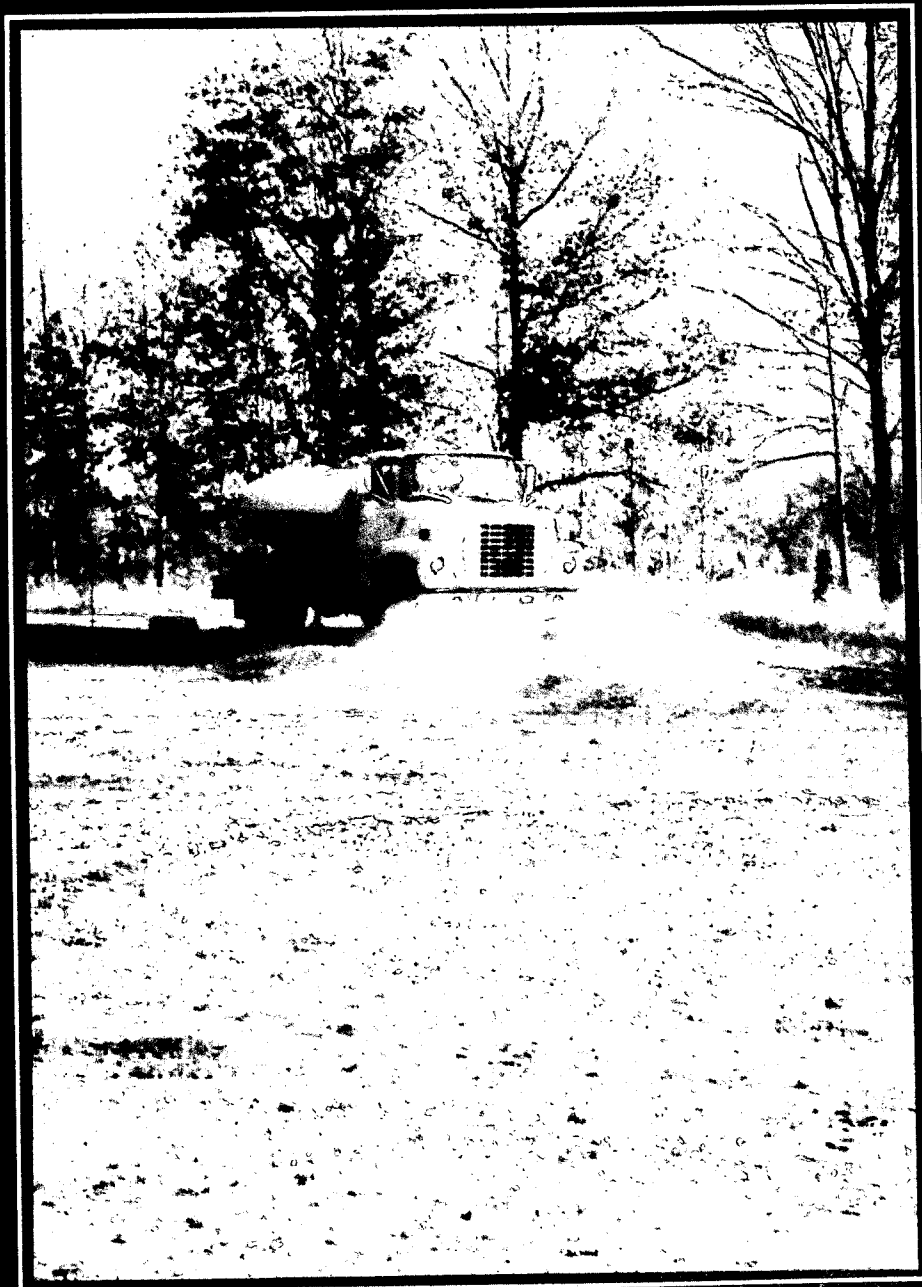
## Lawrence County Eliminates Dust On Landfill Road



*Concerned about the possibility of an accident, Roy Powell found an inexpensive, quick solution to eliminate dust on the county landfill road .....22*

## Morristown and Hamblen County Join Forces to Increase Landfill Life Expectancy

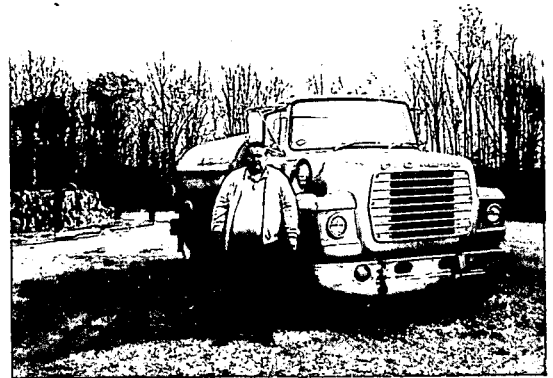
*As part of a \$1.5 million dollar investment for new equipment, the combined Morristown/Hamblen County landfill sites now have a solid waste mixing building where 2 balers are located, plus a new pit burner, conveyor system, fork lift loaders and trucks. ....10*



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# Lawrence County Eliminates Dust on Landfill Road

By Judy McGill



*Left: Semi-pave® dust control agent was mixed with water and sprayed onto the surface of the road using a truck borrowed from the City of Lawrenceburg. It took approximately 5700 gallons of the diluted product to cover the landfill road which is .25 of a mile in length. Above: Roy Powell, Director of Solid Waste for Lawrence County, wanted to eliminate the dust on the landfill road because he was concerned about the possibility of someone having an accident.*

**“W**e had a real dust problem on our landfill road, and I was concerned about the possibility of someone having an accident,” said Roy Powell, Director of Solid Waste for Lawrence County. “A big garbage truck really stirs up the dust and makes it almost impossible to see.”

“Our landfill road is used by all of the city and county haulers as well as private citizens,” Powell explains. “Roughly, I’d guess we have about 200 vehicles a day on this road. Originally I got interested in using a product to eliminate dust because I knew that we couldn’t afford to pave the road, and I knew the road was not safe.”

Lawrence County’s landfill road was a compacted clay dirt road with 5% gravel. Before the treatment began, the road was bladed to a depth of 4 inches to loosen the compacted surface. Since the road was so hard, it took several passes to loosen the surface.

Powell chose Semi-pave, an emulsified, non-volatile petroleum resin that coats and binds individual soil particles into a compact, cohesive mass, to eliminate the dust problem. The heavy resins in Semi-pave impart a “pavement-like” quality to the soil at a fraction of the cost of conventional pavements.

Because of heavy rains the day before the project began, less water was used to dilute the Semi-pave. Originally, Powell had planned to use 1 gallon of Semi-pave for every 10 gallons of water.

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However, after the rainfall the decision was made to go with a dilution rate of 1 gallon of Semi-pave to 4 gallons of water.

“We borrowed Lawrenceburg’s water truck to do the job,” said Powell. “It was really a simple process. Once we mixed the product with the water, we just had to make one application to the road.”

The truck has a 1900 gallon tank with a spray unit on the front. It took approximately 5700 gallons of the diluted product to cover the landfill road which is .25 of a mile in length. The tractor, with its blades still turning the soil, followed behind the water truck to allow maximum mixture of Semi-pave and the soil.

After the mixture was applied, a grader was used to shape the road and give it enough angle to shed water. Grading the road also helps to prevent “potholing” and “washboarding.” The final phase of treatment was the application of a heavy resin “cap” to seal the soil surface.

“I think this is really going to help counties,” Powell said. “They have so many dirt roads that are too expensive to pave. The cost of this dust control product is great compared to paving or anything else. And it doesn’t require a lot of expensive equipment. I think this is going to be the answer for a lot of counties.”

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